

IOFFE, I.I.; KLIMOVA, N.V.; MAKEYEV, A.G.

Liquid phase catalytic oxidation of organic compounds on noble metals. Part 3: Oxidation of ethylene glycol to glyoxal. Kin.1 kat. 3 no.1:107-110 '62. (MIRA 15:3)

1. Nauchno-issledovatel'skiy institut organicheskikh produktov i krasiteley imeni K.Ye.Voroshilova.
(Ethylene glycol) (Glyoxal) (Catalysts)

DZHUVARLY, Ch.M.; ALIYEV, Z.I.; KLIMOVA, M.V.; LOGINOVA, S.I.;
MELIKOVA, T.A.; PRYANIKOV, Ye.I.; SAPONOV, V.A.

Sulfuric-acid refining of distillates of motor oil-10 separating
acid oil from tar in an electrical field. Azerb. neft. khoz. 40
no.9:36-38 S '61. (MIRA 15:1)

(Lubrication and lubricants)

ALIYEV, Z. E.; DZHUVARLY, Ch. M.; KLIMOVA, N. V.; LOGINOVA, S. N.;
MELIKOVA, T. A.

Effect of electrical parameters on oil refining in a high-
potential field. Trudy ENIN AN Azerb. SSR 15:46-52 '62.
(MIRA 15:10)

(Petroleum--Refining)

S/081/63/000/004/035/051
B194/B180

AUTHORS: Aliyev, Z. E., Dshuvarly, Ch. M., Klimova, N. V., Loginova, S. N., Melikova, T. A.

TITLE: Effect of electric parameters on the refining of oil in a high voltage field

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1963, 521-522, abstract 4P162 (Tr. Energ. in-ta. AN AzerbSSR, 15, 1962, 46-52 [summary in Azerb.])

TEXT: As a result of work on the determination of the parameters of a continuous plant for the sulfuric acid refining of oil distillates in an electric fractionator it was found that the distillate oil-avtol 10, treated with sulfuric acid, can be successfully refined in the electric fields of different forms of voltage (industrial frequency, rectified and pulsed by mono- and dipole waves) at appropriate field gradients. Each type of voltage and field configuration has its own optimum gradient at which the color of the refined oil conforms with GOCT (GOST) standards. The time required for refining is not constant, but depends on the electrical and technological parameters of the plant. A circuit diagram is given for the experimental.

Card 1/2

Effect of electric parameters on...

B/081/63/000/004/035/051
B194/B180

plant. [Abstractor's note: Complete translation.]

Card 2/2

IOFFE, I.I.; KLIMOVA, N.V.

Liquid-phase oxidation of hydrocarbons on solid semiconducting catalysts. *Kin.i kat.* 4 no.5:779-782 S-O '63. (MIRA 16:12)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley.

KLIMOVA, N.V., starshiy nauchnyy sotrudnik

Chemistry in the cleaning of land improvement canals. 7ashch.
rast. ot vred. i bol. 9 no. 4:22-23 '64. (MIRA 17:5)

1. Kaliningradskaya oblastnaya opytno-meliorativnaya stantsiya.

PLYUSHCH, Boris Maksimovich; ROYTMAN, Mariya Vladimirovna;
SARKISYAN, Vachagan Ovanesovich; ESIHYAN, Migran
Aleksandrovich; Prinimali uchastiye; ~~KLIMOVA, N.V.~~;
EL'BIRT, M.D.; PARFENOV, A.N., dots., retsenzent;
TARASOV, D.A., prof., retsenzent; AGADZHANOV, S.P.,
insh., retsenzent

[Electrical equipment for oil and gas fields] Elektro-
oborudovanie neftiannykh i gazovykh promyslov. Moskva,
Nedra, 1965. 311 p. (MIRA 18:4)

1. Zaveduyushchiy kafedroy obshchey i spetsial'noy elektro-
tekhniki Groznenskogo neftyanogo instituta (for Parfenov).
2. Vsesoyuznyy zaochnyy politekhnicheskii institut (for
Tarasov). 3. Neftyanoye upravleniye Soveta narodnogo kho-
zyaystva SSSR (for Agadzhanov).

L 27684-66 ENP(1)/ENT(m) IJP(c) RM
ACC NR: AP6005617 SOURCE CODE: UR/0233/65/000/003/0137/0143

AUTHOR: Abasov, S. A.; Hagirov, M. A.; Klimova, N. V.; Malin, V. P. 4/8

ORG: none

TITLE: Effect of electric field on dielectric and mechanical properties of polystyrene film

SOURCE: AN AzerbSSR. Ivestiya. Seriya fiziko-tekhnicheskikh i matematicheskikh nauk, no. 3, 1965, 137-143

TOPIC TAGS: polystyrene, electric field, dielectric property, mechanical property

ABSTRACT: The loss angle, dielectric constant, electric strength, and electric conductance of a 20- μ thick polystyrene film were measured at various temperatures and frequencies; also, mechanical properties of the film were determined. The film was aged by a 50-cps voltage of 1 to 7 kv in special cells where the film was stretched on a metal electrode, and a second metallized-glass electrode was brought in contact with or fixed at a distance (airgap) from the film. Plots are presented of $\tan \delta$ measured at 1000 cps after the film had been aged at 3-7 kv for 5 hrs;

Cont 1/2

KLIMOVA, M.Ya.

Fibrosarcoma of the lesser omentum. Khirurgiya Supplement:20-21 '57.
(MIRA 11:4)

1. Iz Gor'kovskogo gorodskogo onkologicheskogo dispensera.
(OMENTUM--TUMORS)

VOGRALIK, V.G., prof., red.; BELOUSOV, S.M., red.; BOL'SHEV, I.M.,
red.; KLIMOVA, N.Ya., red.; KOROLEV, B.A., red.; YASHANIN,
Yu.V., red.

[Problems in the pathology and treatment of blood system
diseases] Voprosy patologii i terapii sistemy krovi. Gor'kii,
1961. 197 p. (MIRA 14:12)

1. Gospi'tal'naya terapevticheskaya klinika Gor'kovskogo medi-
tsinskogo instituta im. S.M.Kirova i Gematologicheskoy kliniki
pri Oblastnoy stantsii perelivaniya krovi (for Vogradik).
 2. Gor'kovskaya oblastnaya stantsiya perelivaniya krovi (for
Bol'shev, Klimova, Yashanin). 3. Klinika gospi'tal'noy khirurgii
Gor'kovskogo meditsinskogo instituta im. S.M.Kirova (for Korelev).
- (BLOOD--DISEASES)

KLIMOVA, N.Ya.; YASHANIN, Yu.V.

Bone marrow transplantation in the clinic. Probl.gemat.i perel.
krovi no.9:26-28 '61. (MIRA 14:9)

1. Iz gematologicheskogo otdeleniya Gor'kovskoy oblastnoy stantsii
perelivaniya krovi.
(MARROW--TRANSPLANTATION) (AGRANULOCYTOSIS)

KLIMOVA, Nina Yaroslavna; SIMONYAN, K.S., red.

[Work experience of the Gorkiy Province Blood Service]
Opyt raboty Gor'kovskoi oblastnoi sluzhby krovi. Moskva, Meditsina, 1964. 73 p. (MIRA 17:12)

1. Direktor Gor'kovskoy oblastnoy stantsii perelivaniya krovi (for Klimova).

ZAK, A.F.; KLIMOVA, N.Ye.; YERMOLOVA, O.B.; YAKOBSON, I.M.

Evaluation of the harmlessness of erythromycin based on data
of various tests. Antibiotiki 10 no.7:622-623 J1 '65.

(MIRA 18:9)

1. Otdel antibiotikov Kontrol'nogo instituta imeni A.A.
Tarasovicha, Moskva.

KLIMOVA, N.Ye.

Stimulating effect of erythromycin on the development of
chick embryo. Antibiotiki 10 no.3:225-229 Mr '65.

(MIRA 18:10)

1. Otdel antibiotikov Kontrol'nogo instituta meditsinskikh
biologicheskikh preparatov imeni L.A. Tarasevicha, Moskva.

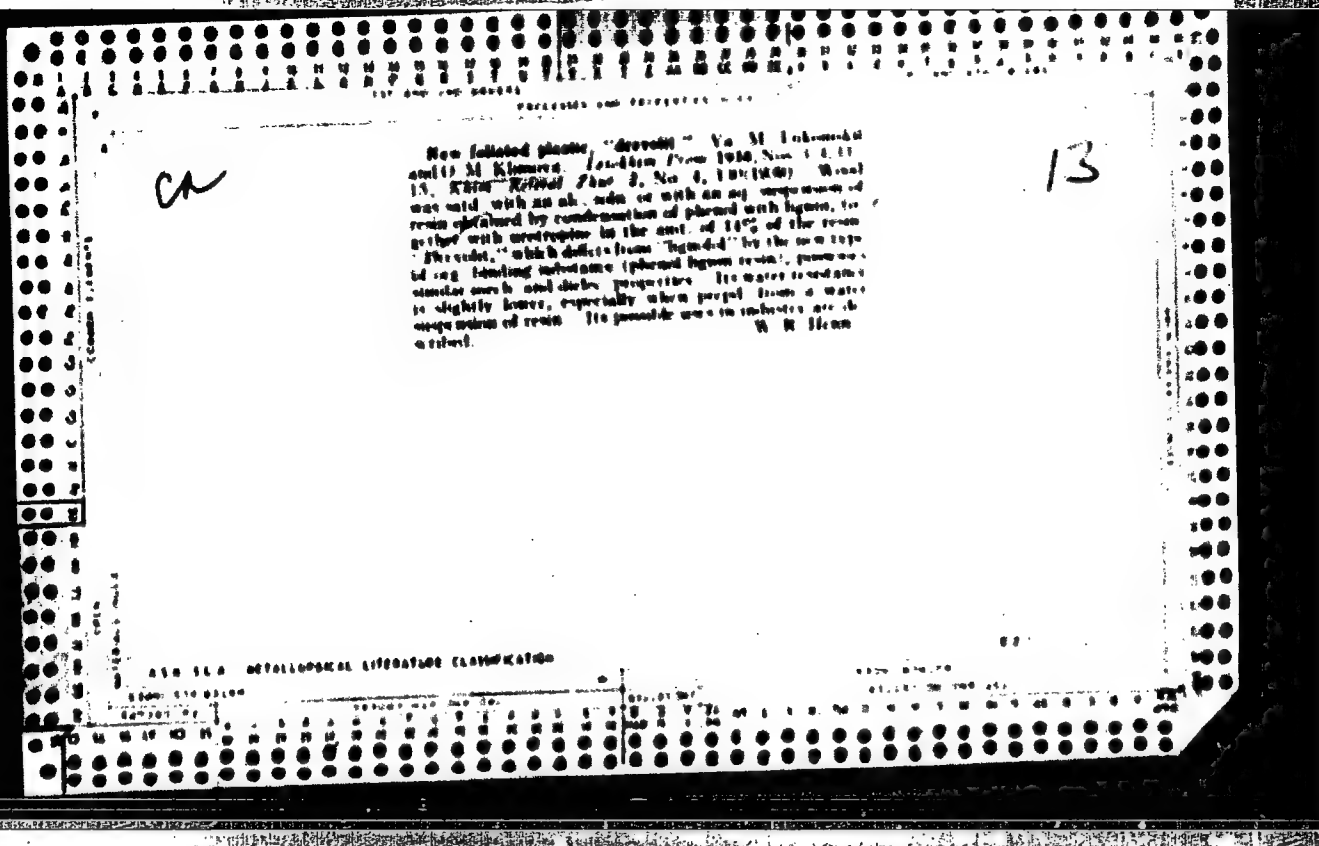
ZAK, A.F.; KLIMOVA, N.Ye.

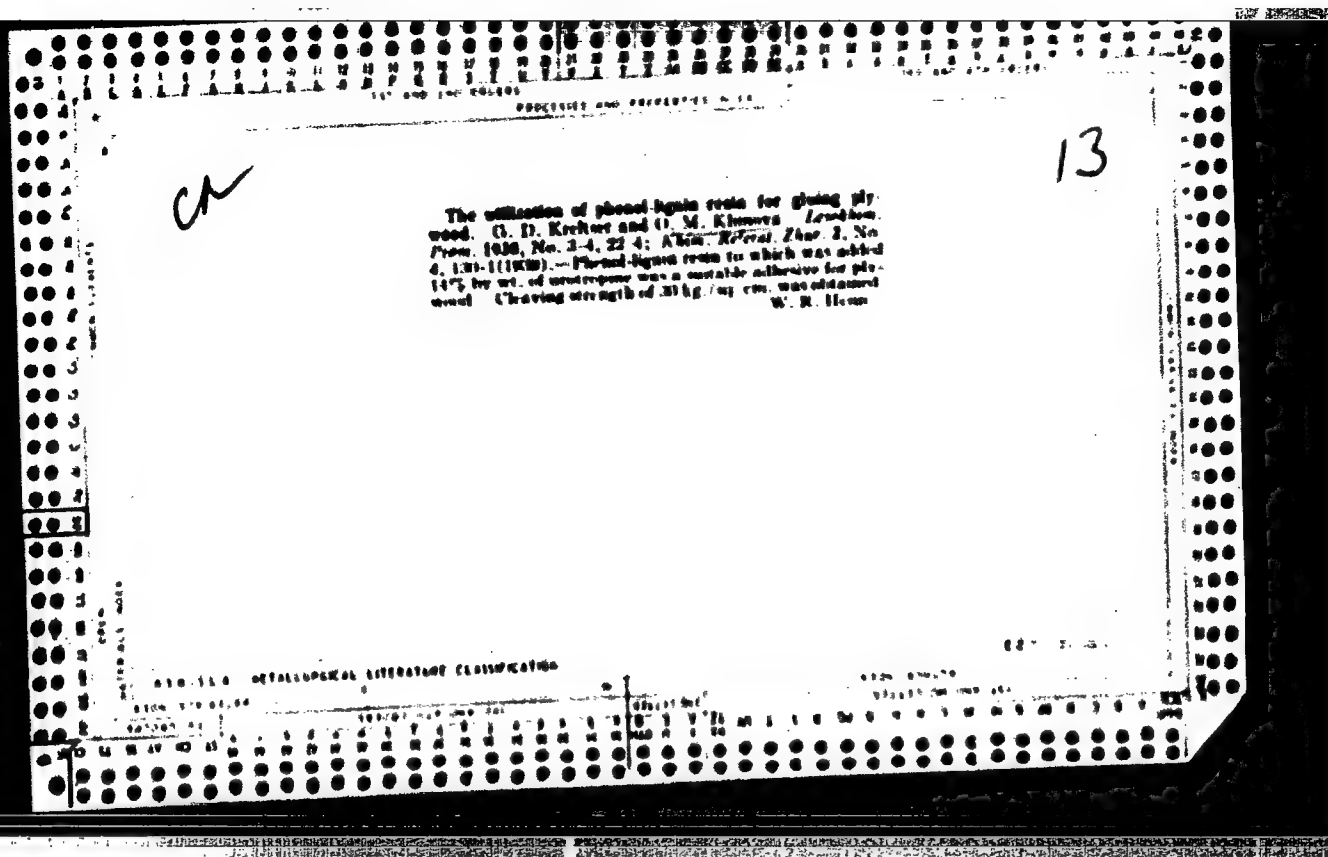
Acute toxicity of colimycin, mycerin and monomycin according to data from various tests. Antibiotiki 9 no.1:73-76 Ja '64.

1. Otdel antibiotikov (sav. - prof. L.M.Yakobson) Kontrol'nogo instituta imeni Tarasevicha, Moskva. (MIRA 18:3)

BRATSYKHIN, Yevgeniy Aleksandrovich; KLIMOVA, O.M., red.; ERLIKH,
Ye.Ya., tekhn. red.

[Technology of plastics] Tekhnologiya plasticheskikh mass]
Leningrad, Goskhimizdat, 1963. 399 p. (MIRA 16:4)
(Plastics)





System nitric acid-calcium acid water. O. M. Kharova and I. I. Zakharenko (Izv. Vses. Khim. Tekhn. Inst. 2, 286, 1949). *Published. Russ. (J. Applied Chem.)* 22, 686-67 (1949). Values of Δ were obtained for the binary system $\text{HNO}_3\text{-H}_2\text{SO}_4$, $\text{HNO}_3\text{-H}_2\text{O}$ and for the binary system $\text{HNO}_3\text{-H}_2\text{SO}_4$. In the binary system, Δ varies smoothly from 1.5313 to 1.5314, to a max. of 1.5315 at 10.31 mole % HNO_3 and down to 1.5310 for HNO_3 . Δ and Δ varied, the difference between the actual " Δ , Δ " and the av. value, where " Δ , Δ " = Δ - Δ varied from the max. on the basis of 5 atoms per mol. HNO_3 and 7 for H_2SO_4 , with intermediate values for mixtures of the two compounds. Values of Δ Δ three-fold, when plotted against Δ , Δ vary smoothly from 0 for both pure components to a broad max. of 7.78 between 30 and 50 mole % HNO_3 . This is attributed to the formation of the complex, $\text{HNO}_3 \cdot 2\text{H}_2\text{SO}_4$ or $(\text{HNO}_3)_2 \cdot \text{H}_2\text{SO}_4$ ($\text{H}_2\text{SO}_4 \cdot \text{h}$) and $\text{HNO}_3 \cdot \text{H}_2\text{SO}_4$ or $(\text{HNO}_3)_2 \cdot \text{H}_2\text{SO}_4$ ($\text{H}_2\text{SO}_4 \cdot \text{h}$). The data thus obtained differ somewhat from those of Nagai-

[illegible]

0.00, 0.01, 0.02, 0.12, 0.34. The interpretation of the NiOH^+ curve is that the initial increase in red. change is due to the formation of the $\text{Ni}(\text{OH})^+$, and in NiOH^+ + NiOH^+ the $\text{Ni}(\text{OH})^+$ is formed by the reaction $\text{NiOH}^+ + \text{H}_2\text{O} \rightarrow \text{NiOH}^+ + \text{NiOH}^+$. The relation of these two curves to each other is not clear. The relation of these two curves to each other is not clear. The relation of these two curves to each other is not clear.

ZASLAVSKIY, I. I.; KLEMOVA, O. M.

Acids, Inorganic

Structure of complexes in the system sulfuric anhydride-nitric anhydride-water.
Izv. Sekt. plat. i. blag. met. No 26, 1951.

9. Monthly List of Russian Accessions, Library of Congress, May 1952, Uncl.

KLDG/A, C. P.

258714

USSR/Chemistry - Sulfuric Acid, Nitrat- May 52
ing Mixtures

"Study and Classification of Compounds in the System Sulfuric Acid Anhydride - Nitric Acid Anhydride - Water," I. I. Zaslavskiy, O. M. Klimova, L. V. Gus'kova, Chair of Inorg Chem, Ivanovo Chem-Technol Inst

Zhur Obshch Khim, Vol 22, No 5, pp 752-758

In the above liquid system, several compds of definite chem compn were found having the general formula $\text{H}_2\text{O}_5 \cdot 4\text{SO}_3 \cdot n\text{H}_2\text{O}$. Some of the members of this group were separated in cryst form.

258714

Their stability decreases, as the coef n increases, i.e., as the quantity of water in the compd increases. If the coef exceeds 5, this compd does not exist in the liquid state even in partially dissocd form. Attempts were made to classify known individual compds of the series $\text{H}_2\text{O}_5 \cdot 4\text{SO}_3 \cdot n\text{H}_2\text{O}$.

KLIMOVA, E. M.

7

Chemical Abstracts
Vol. 48 No. 5
Mar. 10, 1954
Inorganic Chemistry

Study and classification of the compounds in the system
sulfur trioxide-nitrogen pentoxide-water. ~~Chim. Zvezd.~~
E. M. Klimova and L. V. Gulyaeva (Moscow Inst. Chem.
Techol.). J. Gen. Chem. U.S.S.R. 23, 818-19 (1953)
(Engl. translation).—See C.A. 49, 8636a. H. L. H.

ME
7-19-54

CA

23

Hydroxyethyl allyl ethers of cellulose and their copolymerization with sulfur dioxide. B. N. Ushakov and O. M. Klenova. *Zh. Prikl. Khim.* (J. Applied Chem.) 25, 191-193 (1952). *cf. C.A.* 46, 567a. — Mixed hydroxyethyl and allyl ethers of cellulose with different degrees of substitution were treated with SO_2 in the presence of AgNO_3 catalyst, to yield copolymers. The amt. of SO_2 in the final product is equiv. to the content of allyl groups. The products display only that is directly proportional to the no. of allyl groups. Thus, the copolymer with 0.008 fraction of allyl groups, initially, and contg. 1.4% S, dissolves only partly in pyridine; a product with 16% S (higher initial allyl content) is completely insol. Increase of hydroxyethyl groups tends to offset this tendency, to some extent by the corresponding decrease of the proportion of allyl groups present. The copolymers are generally quite hard, substances. One allyl group per 2 glucose units suffices to produce a completely hard polymer. The copolymers are sol. in concd. HNO_3 and H_2SO_4 but cannot be pptd. by diln. without change. G. M. Kondratoff

KLETONA, O. M.

257T32

USSR/Chemistry - Sulfuric Acid, Nitration Dec 52

"Outstanding Points on Specific-Gravity Curves for the System Nitric Acid - Oleum," V. A. Usol'tseva, O. M. Klimova, and I. I. Zaslavskiy, Ivanovskiy Chemicotechnological Inst

Zhur Prik Khim, Vol 25, No 12, pp 1309-1311

The sp gr at 20° for mixts of nitric acid and various concns of oleum were exptlly measured. It was noted that on those parts of the curves corresponding to compns with the greatest number of nitronium hydropyrosulfate molecules there are well expressed bends.

257T32

KLIMOVA, O. M.

name/chemistry - Plastics

Jan 52

"Hydroxyethyl Ethers of Cellulose and Their Copolymerization With Sulfurous Anhydride," S. M. Ushakov, O. M. Klimova

"Zhur Prikl Khim" Vol XVI, No 1, pp 46-56

Uniform low-mol allyl ethers of cellulose were synthesized by homogeneous medium method in following manner. Hydroxyethyl ether of cellulose (I) (sol in aq alkali solns of 18-20% concn) was prepd. I reacted with allylbromide in different proportions to yield hydroxyethylallyl ethers of cellulose (II) with different degs of substitution. Under

206751

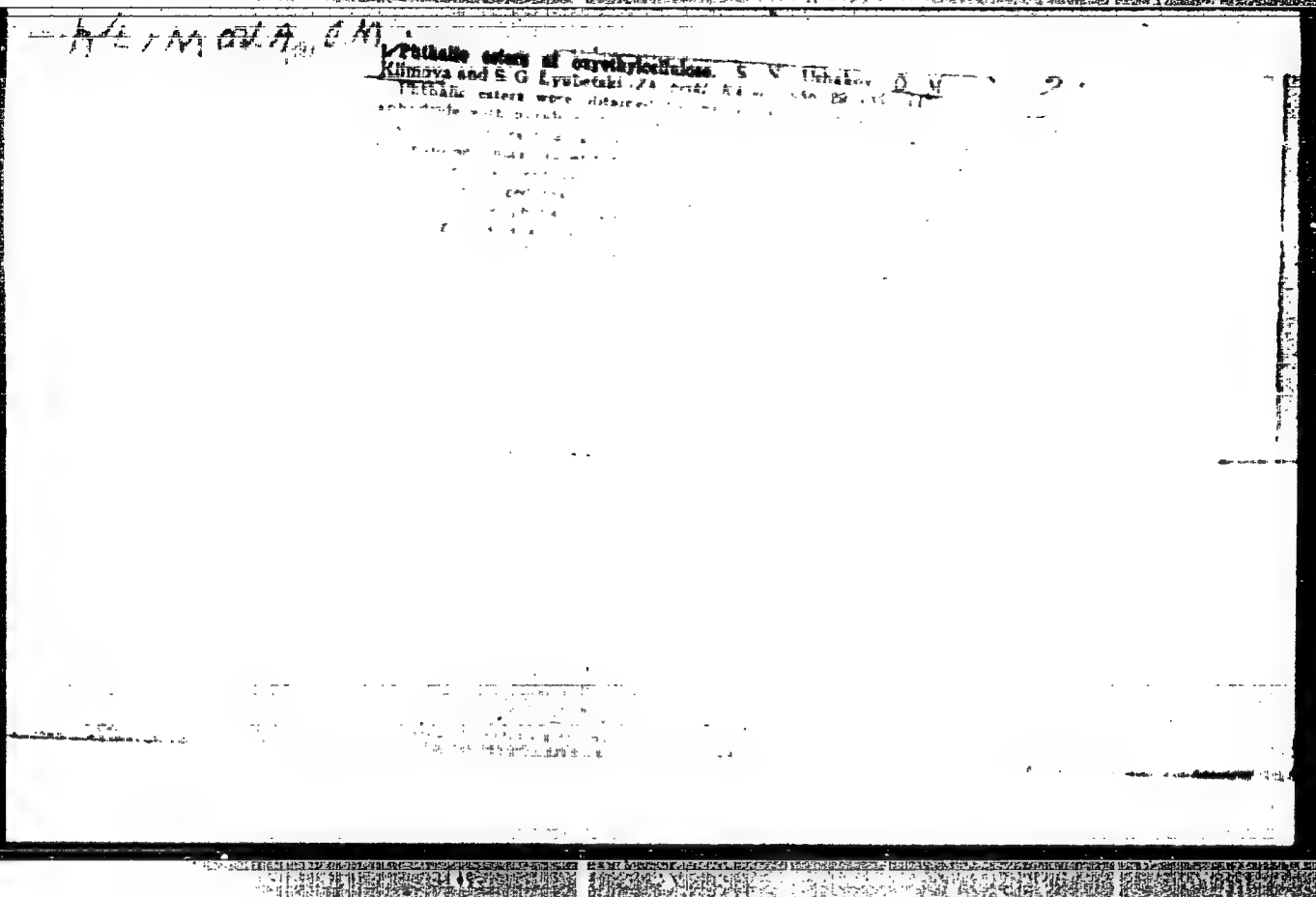
name/chemistry - Plastics (Contd)

Jan 52

exposure to air II was oxidized into insol prod-uct (IV). Polymerization of II under action of benzoyl peroxide and heat stopped at stage of gel-formation, due to spatial hindrances.

206751

Hydroxyethyl allyl ethers of cellulose and its copolymeriza-
tion with sulfur dioxide 4 V. V. Pukhov and M. K.
Morg. Pomeroy 4 Terebinth 4 73 12 253 See
67 2007



KLM to CM

Structure of high-substituted silanes, 1964

groups of the silanes, 1964

Acetic-phthalic cellulose esters O. M. Kuznetsov and V. A. ...
 The reaction mechanism was studied in experimental synthesis of acetic-phthalic cellulose esters (I) at 100-140°C and 47% in the presence of pyridine, with phthalic anhydride (II) and cellulose (III, containing 55% acetate groups) mixtures in the ratios 5:1:8:1 and 15:1:1, with II dissolved in the pyridine at reaction temp. Samples of the reaction mixture were taken at regular intervals and the acetate (IV) and phthalate group (V) contents determined by alkaline saponification. By varying the quantity of II, temp. and duration of reaction, mixed esters are obtained with a substantially different content of V. Esters of increased V content were less stable. With ratio of II:III:8:1 and higher there is partial substitution of some parts of IV for V. By increasing the heating period V disintegrates, resulting in a lower degree of substitution although the no. of IV is not varied. I cannot withstand prolonged heating, especially > 100-100°, their thermal stability is lowered by increase in content of V. The cellulose esters obtained dissolved in a series of org. solvents and formed transparent elastic films 1-0.02 mm. thick. The combining of phthalic esters to partially hydrolyzed cellulose led chiefly to formation of acid esters. The introduction of large quantities of free carbonyl groups into I indicates the possibility of obtaining trimeric cellulose deriv. Films made from I, A, B and C (with degree of substitution of acetyl and phthalate, 2.34, 0.32; 2.34, 0.56, and 2.11, 0.69 respectively) had tear-resistance of 4.8, 4.2 and 3.8 kg/mm; relative elongation, 16.2, 20.0 and 25.2%; and water absorption of 4.70, 3.25 and 2.18 wt.%, after 24 hr (with ratio of components 5:1:8:1 and 8:1 and reaction time, 15 min, 30 min and 5 hr respectively) A. L. B.

Distr: 4E4J/4B2c(j)

Lensovet Technol Inst. Leningrad.

IL'INA, G. H.

"Relative reactivity of the OH-groups of cellulose in ethylation,"
a paper presented at the 9th Congress on the Chemistry and Physics of High
Polymers, 20 Jan-2 Feb 57, Moscow, Leningrad Polytechnic Inst.

B-3,024,395

KLIMOVA, O.M.; PETUSHKOVA, L.F.

Studying the process of deacetylation of acetyl cellulose. Zhur. ob.
khim. 27 no.8:2096-2099 Ag '57. (MIRA 10:9)

1. Leningradskiy tekhnologicheskii institut imeni Lencoveta.
(Cellulose acetates)

521001A O.M

Structure of carbomethylcellulose and its derivatives.
O. M. Klimova and M. G. Kuznetsova. *Leningrad. Khim. Ind. (Leningrad)*. 2:167. Printed in U.S.S.R. 1957.
4(1957) -- The effect of a radical with a free C_{60} group on the reactivity of cellulose was investigated. Carbomethylcellulose (I) was prepd. by digestion of cellulose (II) with $CH_3COOH + NaOH$ for 2 hrs. at 60-63°. The product was pptd. with $EtOH$, dialyzed, and dried at 60° giving I with $\gamma = 63$. I and II were acetylated and benzylated. II before acetylation was activated by mercerizing in 20% $NaOH$ and aging 48 hrs. at 20°; before benzylation it was mercerized in 45% $NaOH$ and aged 24 hrs. at 30°. I was activated by swelling in pyridine- H_2O (9:1) before acetylation and in 45% $NaOH$ before benzylation. The values of γ of I and II obtained by acetylation were 22.6 and 43 after 8 hrs. at 20° and 62 and 147 after 1 hr. at 60°. The corresponding values after benzylation were 22 of I and 63 of II. The activity of the remaining OH groups in I and II, detd. by trylation, remained unchanged.

L. Benveniste

4
3d
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fm

KLIMOVA, O.M.; BOYARINOVA, L.V.

Epoxy resins from shale phenols. Khim. i tekhn. gor. slan. i
prod. ikh perer. no.9:226-231 '60. (MIRA 15:6)
(Epoxy resins) (Oil shales) (Phenols)

KLINOVA, O.M.; POZDEYEVA, T.S.; BOYARINOVA, L.V.

Synthesis of resins from lignin and higher fractions of shale
phenols. Khim. i tekhn. gor. slan. i prod. ikh perer. no.9:
232-235 '60. (MIRA 15:6)
(Gums and resins, Synthetic) (Lignin) (Phenols)

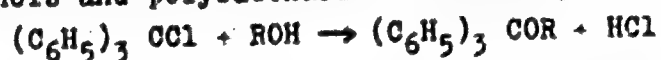
S/080/60/033/010/020/029
D216/D306

AUTHORS: Klimova, O.M., and Ketslakh, V.Ye.

TITLE: Trityl esters of polyvinyl alcohol

PERIODICAL: Zhurnal prikladnoy khimii, v. 33, no. 10, 1960,
2319 - 2323

TEXT: The reaction of formation of the so-called trityl ester, i.e. the ester obtained by interaction of triphenylchloromethane with aliphatic alcohols and polysaccharides according to:



was for a long time considered as specific for compounds containing primary alcohol groups and was used to determine the structure of hydroxyl-containing low and high molecular compounds. During examination of structure of the products of polyvinyl alcohols containing primary and secondary hydroxyls, it was discovered that polyvinyl alcohol (PVS) reacts with triphenylchloromethane. The

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Trityl esters of polyvinyl alcohol

S/080/60/033/010/020/029
D216/D306

further study of this problems has shown the possibility of obtaining trityl esters of PVS with trityl group content of 7 to 69 pct. The initial PVS used was obtained by alkaline saponification and had a mean molecular weight of 24,000. The pre-activation of PVS was done by two methods (a) the swelling of PVS with pyridine-water mixture (1:9) for 48 hours, after which the water was removed by extractions with water-free pyridine, and (b) heating suspension of dry PVS in water-free pyridine on a boiling water bath for 4 hours with stirring. Tritylation was done in water-free pyridine since it was found that small traces of moisture inhibit reaction completely. The maximum degree of substitution (67-69 mol. pct.) was obtained using an excess of 6 times of triphenylchloromethane with respect to PVS. The increase in the quantity of triphenylchloromethane has not increased the content of trityl groups. Obtained by preactivating with boiling dry pyridine, when the yield of trityl groups decreased from 69.0 to 27 mol. %, the result served to clarify the effect of pre-activation on the tritylation reaction. The physico-chemical properties of products obtained when using

Card 2/3

Trityl esters of polyvinyl alcohol

S/080/60/033/010/020/029
D216/D306

different conditions changed with the change in the content of trityl groups. There are 2 tables, 2 figures and 8 references: 1 Soviet-bloc and 7 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: R.C. Hockett, and O.S. Hudson, J. Am. Chem. Soc., 56, 945, 1934; E.L. Jackson, R.C. Hockett and O.S. Hudson, J. Am. Chem. Soc., 56, 1947, 1934; Hearon, Hiatt, Fordyce, J. Am. Chem. Soc., 65, 829, 1954; D.D. Reynolds, W.O. Kenyon, J. Am. Chem. Soc. 72, 1584, 1950.

ASSOCIATION: Leningradskiy tekhnologicheskii institut imeni Lenso-
veta (Technological Institute of Leningrad imeni
Lensovet)

SUBMITTED: January 20, 1960

Card 3/3

85448

S/080/60/033/011/010/014
A003/A001

158105

AUTHORS: Klimova, O. M., Datsenko, V. T.TITLE: The Phenyl Esters of Polyvinyl Alcohol

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol. 33, No. 11, pp. 2582-2586

TEXT: The possibility was studied of synthesizing polyvinylphenyl esters with various degrees of substitution by introducing phenyl groups into the chain of polyvinyl alcohol. It was found that in the interaction of polyvinyltosyl with sodium phenolate in a medium of molten phenol (which is a solvent for both components) a complete substitution of tosyl groups by phenyl groups takes place at a temperature of 110-120°C in the course of 5 hours. For this purpose it is necessary to obtain first the tosyl esters of polyvinyl alcohol as intermediary products. The initial material was polyvinyl alcohol with a molecular weight of 24,000. It was preliminarily activated by swelling in pyridine and water or by heating a suspension of polyvinylchloride with an excess of pyridine anhydride. To the activated material a solution of paratoluenesulfochloride in pyridine was added. The reaction took place at 18°C during 3-5 days. The substance obtained was washed and dried at a residual pressure of 2-4 mm at a temperature of 30-40°C.

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85448

S/080/60/033/011/010/014

A003/A001

The Phenyl Esters of Polyvinyl Alcohol

It was shown that the degree of adding tosyl groups to polyvinyl alcohol was determined by the ratio of the latter to paratoluenesulfochloride and the duration of the tosylation reaction. The tosyl esters obtained are well soluble in the cold in pyridine, acetone, phenol, and during heating or long standing in chloroform, dioxane, benzyl alcohol and aniline. The tosyl esters obtained were treated with sodium phenolate in the presence of molten phenol. Sodium phenolate was introduced in the amount of 5-7 moles per 1 mole of tosyl ester. The mixture was heated to 90°C until complete dissolution of all components, after which the temperature was raised to 115-120°C. The reaction took place at this temperature during 6 hours under continuous stirring. Several phenyl esters of polyvinyl alcohol were obtained with various degrees of substitution. Phenyl esters containing 31.0 and 88.4 molar % of phenyl groups were tested for resistance to alkaline and acidic solutions. They proved to be resistant to 0.1 n aqueous and alcohol solutions of KOH during boiling for 4.5 hours. A 25% aqueous solution of NaOH does not act on the phenyl ester of the polyvinyl alcohol in the cold. Concentrated sulfuric and nitric acids dissolve the polymer. Esters with a high content of phenyl groups melt at 130-150°C. From a chloroform solution of a polymer containing 48.3 molar % of phenyl groups hard, transparent, lustrous films were obtained which had a high adhesion to glass. The method described

Card 2/3

USHAKOV, S.N.; KLIMOVA, O.M.; KARCHMARCHIK, O.S.; SHUL'SKAYA, E.M.

Synthesis of blood substitute polymers exhibiting the properties
of inhibitors-antioxidants. Dokl. AN SSSR 143 no.1:231-
234 Mr '62. (MIRA 15:2)

1. Chlen-korrespondent AN SSSR (for Ushakov).
(BLOOD PLASMA SUBSTITUTES)
(VINYL COMPOUND POLYMERS)
(CANCER RESEARCH)

KLIMOVA, O.M.; KURAS, A.M.; STEPANOV, V.V.; KHARLAMOVA, N.I.

Synthesis of polyvinylene glycol derivatives. Zhur.prikl.
khim. 37 no. 5:1152-1155 My '64. (MIRA 17:7)

1. Leningradskiy Tekhnologicheskii institut imeni Lensoveda.

33945-65 LNT(a)/EPF(c)/EPR/EPF(j)/I PC-4/PT-4, PS-4 RM/RM
 ACCESSION NR: APL047205 S/0190/64/006/010/1799/1801

AUTHOR: Kazanskaya, V. F.; Klimova, O. M.; Khlebnikov, B. M.

TITLE: Copolymerization of vinylhydroquinone dibenzoate with acrylic and methacrylic acids

SOURCE: Vysokmolekulyarnyye soyedineniya, v. 6, no. 10, 1964, 1799-1801

TOPIC TAGS: vinylhydroquinone dibenzoate, acrylic acid, methacrylic acid, vinylhydroquinone copolymerization, polyacrylic acid, polymethacrylate, azoisobutyrodinitrile

ABSTRACT: The copolymerization of vinylhydroquinone dibenzoate (VHD) with acrylic (AC) and methacrylic acid (MAC) was carried out in sealed Carrius tubes in toluene in the presence of azoisobutyro-dinitrile (1% by weight of the monomers) at 60°C. The length of the reaction ranged from 40 min. to 2 hours. The polymers obtained were washed with toluene and ether, dissolved in dimethylformamide, and precipitated with one of the following reagents: dichloroethane, petroleum, ether or acetic acid. The material was dried in a vacuum at 60°C, and the results of the experiment were analyzed for monomer activity by the integral method of Mayo and Lewis. The values of r_1 and r_2 for the AC-VHD pair were found to be 0.44 ± 0.13 and 0.95 ± 0.002 , respectively. For the MAC-VHD pair, they

L 33945-65

ACCESSION NR: APL047205

were 1.91 ± 0.23 and 0.91 ± 0.25 , respectively. The specific activity (Q) of VHD based on data from its copolymerization with AC was 1.3, polarity (c) 0.06, while for VHD with MAC Q was 1.80 and c was 0.04. On the basis of these data, the authors conclude that the specific activity of VHD is of the same order of magnitude as that of styrene. Orig. art. has: 2 formulas and 2 tables.

ASSOCIATION: Leningradskiy tekhnologicheskii institut im. Lensovetu (Leningrad technological institute)

SUBMITTED: 02Dec63

ENCL: 00

SUB CODE: 0C

NO REF SOV: 001

OTHER: 007

Card 2/2

L 54963-65 EWT(m)/EPP(c)/EPR/ENP(j)/T Pc-4/Pr-4/Ps-4 RPL WW/RM

ACCESSION NR: AP5014168

UR/0080/65/038/005/1188/1191
678.13

AUTHOR: Klubikova, L. Ye.; Klimova, O. M.; Yarosh, A. V.

TITLE: Copolymerization of vinylencarbonate and vinylacetate using redox initiator systems

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 5, 1965, 1188-1191

TOPIC TAGS: copolymerization, vinylencarbonate, vinylacetate, redox initiator, polymerization initiator

ABSTRACT: The effect of oxygen, mixing, temperature, and pH on copolymerization of vinylencarbonate with vinylacetate and the composition of the copolymer was studied in order to determine optimal reaction conditions. The study was done in an aqueous medium using the following redox initiator: $\text{FeCl}_3 + \text{ZnO} + \text{UV irradiation}$; $\text{H}_2\text{H}_4 + \text{CuSO}_4$; $\text{H}_2\text{C}_2\text{O}_4 + \text{UV irradiation}$; and $(\text{NH}_4)_2\text{S}_2\text{O}_8 + \text{ascorbic acid}$. There has been no reference in the literature as to the use of the $(\text{NH}_4)_2\text{S}_2\text{O}_8 + \text{ascorbic acid}$ system as a copolymerization initiator for vinylencarbonate and vinylacetate. The highest copolymer yields (in the range from 60 to 70% O were obtained at 20°C using a

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L 54963-65

ACCESSION NR: AP5014168

starting monomer ratio of 20 mol % of vinylencarbonate to 80 mol % of vinylacetate, water:monomer ratio 4:1, 0.01 mol % per liter of $(\text{NH}_4)_2\text{S}_2\text{O}_8$, and 0.01 mol per liter of ascorbic acid. The copolymerization proceeded for 48 hours. Depending upon actual composition the copolymer has a characteristic viscosity in dimethylformamide $[\eta]_{20^\circ}$ varying from 1 to 2.5. Orig. art. has: 3 figures and 3 tables.

ASSOCIATION: Leningradskiy tekhnologicheskii institut imeni Lensoveta (Leningrad Institute of Technology)

SUBMITTED: 04Jul64

ENCL: 00

SUB CODE: 06, GC

NO REF SOV: 003

OTHER: 003

Card 2/2

ACC NR: AP6021974

(A)

SOURCE CODE: UR/0153/25/009/002/0314/0316

AUTHOR: Kazanskaya, V. F.; Klimova, O. M.; Tikhomirov, E. A.; Sokolov, G. I. ²²₃₂

ORG: Plastics Technology Department, Leningrad Technological Institute in Leningrad
(Kafedra tekhnologii plasticheskikh mass, Leningradskiy tekhnologicheskii institut)

TITLE: Copolymerization of vinylene carbonate with acrylonitrile in aqueous solutions

SOURCE: IVUZ. Khimiya i khimicheskaya tekhnologiya, v. 9, no. 2, 1966, 314-316

TOPIC TAGS: acrylonitrile, carbonate, copolymerization

ABSTRACT: Vinylene carbonate (VC) was copolymerized with acrylonitrile (AN) in 8% aqueous solutions at 20°C without adding any special initiators. All the copolymers were purified by reprecipitation from a dimethyl sulfoxide - acetone mixture, the degree of conversion was determined gravimetrically, and the copolymer composition was obtained from ultimate analysis. The relative activity constants of VC and AN were calculated from the dependence of the copolymer composition on the composition of the initial VC - AN mixture, and found to be: for VC, $r_1 = 0.086 \pm 0.051$; for AN, $r_2 = 3.280 \pm 0.117$. The specific activity Q for VC was 0.043, and the polarity factor $e = -0.41$. The intramolecular distribution of monomer units in the copolymers was calculated. The probability of finding two consecutive VC units is very small, even for an 80:20 ratio of AN to VC in the initial mixture; hence, the copolymer molecule

Card 1/2

UDC: 678.744.4-134.532

L 39072-66

ACC NR: AP6021974

is a chain consisting of large blocks of AN units which include single VC units. The VC-AN copolymers are similar in properties (solubility, capacity to form films or fibers) to polyacrylonitrile. Orig. art. has: 1 figure and 2 tables.

SUB CODE: 11/07/ SUBM DATE: 26Oct64/ ORIG REF: 004/ OTH REF: 005

Card 2/2 MLP

L 41332-66 ENT(m)/ENP(j)/T/ENP(k) IJP(c) WW/RM
ACC NR: AP6025625

SOURCE CODE: UR/0413/65/000/013/0079/0079

AUTHORS: Klimova, O. M.; El'kinson, S. I.

ORG: none

TITLE: Preparative method for copolymers of vinylene carbonate. Class 39, No. 183391/announced by Leningrad Technological Institute imeni Lensovet (Leningradskiy tekhnologicheskii institut)

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 79

TOPIC TAGS: copolymer, vinyl plastic, thermal stability, ~~ultrasound~~ ultrasound

ABSTRACT: This Author Certificate presents a preparative method for copolymers of vinylene carbonate. To obtain thermally stable polymeric materials, the solution of vinylene carbonate and polystyrene or poly(methyl methacrylate) in an organic solvent is subjected to the action of ultrasound.

SUB CODE: 07/ SUBM DATE: 22Feb65/ ATD PRESS: 5158

Card 1/1 11b

UDC: 678.744.52-134.433.5.678.744.52-134.622

KLIMOVA, P. G.
KLIMOVA, P. G.

Use of aloe extract in certain otolaryngological diseases. Vest.
oto-rin. 16 no.3:81-82 My-Je '54. (MIRA 7:7)

1. In polikliniki No.1 Ministerstva zdoravookhraneniya SSSR, Moskva.
(OTORHINOLARYNGOLOGY,
*otorhinolaryngol. dis., ther., Aloe extracts)
(ALOE, therapeutic use,
*otorhinolaryngol. dis.)

ORLOVA, L.V.; KLIMOVA, S.P.; RODIONOV, V.M.

Radioprotective qualities of the adrenocorticotropic hormone (ACTH).
Med. rad. 9 no.6:19-22 Je '64. (MIRA 18:2)

1. Institut biologicheskoy i meditsinskoy khimii AMN SSSR.

RODIONOV, V.M.; ORLOVA, L.V.; TUUL', L.I.; KLIMOVA, S.P.

Effect of stimulation of the peripheral end of the splanchnic nerve on the secretory function of the adrenal cortex. Dokl. AN SSSR 151 no.5:1238-1240 Ag '63. (MIRA 16:9)

1. Institut biologicheskoy i meditsinskoy khimii AMN SSSR.
Predstavleno akademikom A.N.Bakulevym.
(ADRENAL CORTEX) (NERVES, SPLANCHNIC)

KLIMOVA, T.K.; LEVACHEV, I.A.; STAROSTINA, A.V.; VITEZEVA, K.A.

Some data on tularemia in Archangel Province. Zhur. mikrobiol.,
epid. i immun. 40 no.6:48-54 Je '63. (MIRA 17:6)

1. Is Leningradskoy protivochumnoy portovoy i gorodskoy
nablyudatel'noy stantsii.

LIPKIN, M.Ye.; ARTYKOV, M.S.; ISAYEV, Yu.V.; POLULYAKH, P.A.; VARIVODINA, T.A.;
SHILYAYEV, L.F.; PUN'KO, T.A.; ANDREYEVA, A.P.; BAKULINA, L.I.;
ABRAMOVA, S.G.; KLIMOVA, T.K.; YEGOROV, V.A.; KEMETEV, N.I.; KABIROVA,
M.B.; DASHEVSKIY, V.V.; SORKIN, Yu.I.; KOLENDOVICH, A.I.; SERGEYEVA,
L.I.; NAGAYEV, V.N.; NESTEROVA, G.N.; ALEKSEYEVA, N.A.; GOLUBEVA, V.N.;
ANISIMOVA, T.I.; OVASAPYAN, O.V.; GALOYAN, V.O.; ARAKELIAN, K.A.

Abstracts of articles received by the editors. Zhur.mikrobiol., epid.
i immun. 42 no.3:147-152 Mr '65. (MIRA 18:6)

KLIMOVA, T.Kh.; LORANSKIY, D.N.; YANKOVSKAYA, Z.V.; YANIN, L.V., red.;
YEGOROV, Yu.L., red.; MIROKOVA, A.M., tekhn. red.

[Collection of the most important official data on problems of
industrial hygiene and industrial sanitation] Sbornik vazhnei-
shikh ofitsial'nykh materialov po voprosam gigeny truda i pro-
izvodstvennoi sanitarii. Moskva, Medgiz. No.1. 1962. 314 p.
(MIRA 15:10)

(INDUSTRIAL HYGIENE--LAW AND LEGISLATION)

ACC NR: AP7001405

(A)

SOURCE CODE: UR/0413/66/000/021/0107/0108

INVENTOR: Lashkov, K. A.; Klimova, T. M.; Pomichev, V. A.; Matsyuk, L. M. Kolobkov, Yu. M.

ORG: none

TITLE: Device for heat-pulse welding of polymer films. Class 39, No. 187991

SOURCE: Izobreteniya, promyshlennyye obrastay, tovarnyye znaki, no. 21, 1966, 107-108.

TOPIC TAGS: polymer film, polymer film welding, heat resistance, equipment, ~~contour article, curvilinear lap weld~~, heat-pulse welding device/closed

ABSTRACT: An Author Certificate has been issued for a device for heat-pulse welding of polymer films. The device consists of two insulation blocks, heating elements.



Fig. 1.

1 - Bottom block; 2 - s-shaped support; 3 - top block.

Card 1/2

UDC: 621.791.46.052.2.037

ACC NR: AP70001405

in the form of metal strips with copper inserts, and a support. To obtain closed-contour articles with a curvilinear lap weld, the blocks have a surface curvature corresponding to that of the articles to be welded, and the bottom block is mounted on an s-shaped support. Orig. art. has: 1 figure.

[80]

SUB CODE: 11, 13/ SUBM DATE: 15Aug63/ ATD PRESS: 5109

Card 2/2

MAKULOV, N.A.; ORLOVA, S.A.; KLIMOVA, T.P.

Analytic possibilities of the ten-channel MFS-2 photoelectric
spectrometer. Trudy Giprotsetmetobrabotka no.24:347-354
'65.
(MIRA 18:11)

KLIMOVA, T.P., kand.med.nauk

Blunt wounds of the eye and their treatment. Zdrav.Belor. 5
no.6:31-33 Ja '59. (MIRA 12:9)

1. Iz Belorusskogo instituta usovershenstvovaniya vrachev
(zav.kafedroy oftal'mologii - prof.M.M.Zolotareva) i glasnogo
otdeleniya Minskoy oblastnoy bol'nitsy (glavvrach G.A.TSgojev).
(NYE--WOUNDS AND INJURIES)

ACC NR: AP6009525

SOURCE CODE: UR/0413/66/000/005/0049/0049

AUTHOR: Laptev, N. G.; Shemtova, M. R.; Tabachnikova, N. I.
Klimova, T. S.

ORG: none

TITLE: Preparation of light-resistant, migration-resistant, and heat-resistant varnishes. Class 22, No. 178404 [announced by the Scientific-Research Institute for Organic Semifinished Products and Dyes (Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley)]

SOURCE: Izobreteniya, promyshlennyye obraztzy, tovarnyye znaki, no. 5, 1966, 49

TOPIC TAGS: varnish, heat resistant varnish, light resistant varnish, migration resistant varnish

ABSTRACT: An Author Certificate has been issued describing a method for obtaining light-resistant, migration-resistant, and heat-resistant varnishes made with sulfonated linear quinacridone. To produce varnishes suitable for coating plastics, rubber, and film-forming compounds, the sulfonated linear quinacridone, either in the form of a water solution of the free acid or in the form of a water-soluble

Cord 1/2

UDC: 667.636.44/46

L 24516-66

ACC NR. AP6009525

salt is treated with the water solution of one of the salts of the first, third, and eighth metal group, whereby the process is conducted in the presence of dispersion agents. [LD]

SUB CODE: 11/

SUBM DATE: -05Jan65/

2/3
Card 13-0

KLIMOVA, T. V.

Klimova, T. V. - "Results of investigation the printing chronograph", Soobshch. Gos. astron. in-ta im. Shternberga, No. 31, 1947, p. 20-26.

SO: U-4110, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 19, 1947).

L 10904-66 ENT(m)/I/ENA(m)-2/ENA(h) LJP(c)

ACC NR: AP6002614

SOURCE CODE: UR/0258/65/005/006/1010/1020

AUTHOR: Galkin, V. S. (Moscow); Qusev, V. N. (Moscow); Klimova, T. V. (Moscow) 67

ORG: none

TITLE: Characteristics of a hypersonic viscous gas flow past bodies of simplest shape and their aerodynamic characteristics

SOURCE: Inzhenernyy zhurnal, v. 5, no. 6, 1965, 1010-1020

TOPIC TAGS: hypersonic aerodynamics, aerodynamic characteristics, viscous flow, boundary layer, lift, drag coefficient, friction coefficient

ABSTRACT: This paper presents an analysis of theoretical and experimental data obtained from a large number (19) of studies related to the characteristics of hypersonic viscous gas flows past slender sharp- and blunt-nosed cones and their aerodynamic characteristics at various angles of attack in thermodynamically perfect gas flows. In section 1, hypersonic viscous flows past heat-insulated and cooled ($T_w \ll T_0$) slender, sharp-nosed cones with various semiapex angles θ and angles of attack α are considered. The behavior of drag and lift coefficients under various flow conditions, their dependence on the Knudsen number and parameter θ/\sqrt{Re} , and the limits of applicability of the free molecular theory are discussed. Section 2 deals with hypersonic viscous flows past blunt-nosed cones and discusses the effects of viscosity and bluntness on the drag coefficient, the boundary

Card 1/2

UDC: 533.6.011.55

L 10904-66

ACC NR: AP6002614

layer displacement effect on flow, similarity parameters, and conditions at various angles of attack. Hypersonic rarefied gas flows over flat plates are treated in section 3, where the effect of rarefaction on the friction coefficient, the flow above the plate and the influence of the angle of attack on zones of rarefaction are examined. An approximate method for calculating the flow past slender blunted bodies is outlined in section 4. The complexity of the determination of the inviscid part of the flow is stressed and the necessity of using rough assumptions, as has been done by H. K. Cheng (TASS v. 28, no. 5, 1961), is pointed out. Hypersonic, viscous flow past a blunt-nosed cone is treated as an illustrative example, assuming that the pressure on the outer boundary of an entropy layer is given by the Busemann formula. Distributions of boundary layer thickness, friction and drag coefficients, and pressure on the cone surface were calculated on a computer. The pressure distribution which characterizes the effect of boundary layer—viscous flow interaction on the flow structure is given in graphs and appears primarily in the region of minimum pressure and behind it. Orig. art. has: 9 figures and 4 formulas.

[AB]

SUB CODE: 20

SUBM DATE: 15Jun63/ ORIG REF: 011/ OTH REF: 008/ ATD PRESS:

4472

Card 2/2

L 55935-65

EWI(d)/EWI(l)/EWP(m)/EWI(m)/EWP(w)/EWI(v)/EWA(d)/EWP(r)/EWP(k)/
FCS(k)/EWA(h)/EWA(a) Pd-1/Po-5/Pf-4/Pet W/EM

ACCESSION NR: AP5016262

UR/0258/65/005/003/0416/0424
533.6.011.55

AUTHOR: Gusev, V. N. (Moscow); Klimova, T. V. (Moscow); Korolev, A. B. (Moscow);
Kryukova, B. G. (Moscow); Nikolayev, V. S. (Moscow)

TITLE: Hypersonic, viscous gas flows past sharp-nosed cones

SOURCE: Inzhenernyy zhurnal, v. 5, no. 3, 1965, 416-424

TOPIC TAGS: hypersonic flow, hypersonic viscous flow, hypersonic flow past cone,
hypersonic similitude, real gas effect, drag, friction drag, boundary layer,
hypersonic interaction parameter, boundary layer interaction

ABSTRACT: Hypersonic, viscous gas flows past slender sharp-nosed, thermally-insulated cones at arbitrary angles of attack are investigated. On the basis of the law of viscous hypersonic similitude, expressions are derived for pressure and local skin-friction coefficients, and for the drag acting on the body in the direction of flow. Two limiting cases are considered, that is, 1) when the relative thickness of the boundary layer δ is $\ll \theta$ (where θ is a thickness ratio), and 2) when $\delta \sim \theta$. In the first case, the friction drag is negligibly small as compared with the wave drag, but in the second case they are comparable. Thus,

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ACCESSION NR: AP5016262

the magnitude of the drag is essentially dependent on the relative thickness of the boundary layer; it was determined experimentally in vacuum and in helium aerodynamic wind tunnels at $M_\infty = 5.15$ with $\delta < 0_k$; at $M = 18.5, 20,$ and 21.5 with $\delta \sim 0_k$, respectively; for cones of semiapex angles of $5^\circ < \theta_k < 20^\circ$. The values of the displacement thickness were determined by measuring the angle of the shock wave recorded by the glow-discharge method. The values of the total drag coefficient were plotted as a function of the parameter $\alpha^2 \sqrt{Re_0}$. Optimal parameters of sharp-nosed cones in hypersonic viscous gas flows with respect to minimum drag were investigated at various fixed values of one of the geometric parameters, such as length, surface, or volume. Hypersonic viscous gas flows past cones at small, then at large angles of attack, were also considered and experimentally investigated at the following values of the hypersonic interaction parameter: $\gamma_\infty = 2.5, 4.5,$ and 4.7 . An analysis of the results shows that viscosity effects are substantial only at small angles of attack in the range of interaction parameter considered here, and that when the angle of attack is increased, the magnitudes of the total forces applied to the cone by a viscous flow coincide with those obtained from using the theory of ideal flows. Orig. art. has: 5 figures and 5 formulas.

(AB)

ASSOCIATION: none

Card 2/3

KLIMOVA, V.

To the Tatra Mountains on new electric motorcars. p. 98.
Green light of the Spartakiad of railroad men. p. 99.
ZELEZNICE, Prague, Vol. 4, no. 4, Apr. 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6,
June 1956, Uncl.

KLIMOVA, V.

I was founding steel. IUn. tekhn. no.4:60-62 Ap '57. (MLBA 10:6)
(Steelworkers)

KLIMOVA, Y.

Let us have more professional schools. IUn. tekhn. 2 no.7:16-20
J1 '58. (MIRA 11:10)
(Professional education)

KLINOVA, V.

Corn grown by Ryazan students. 1Un.tekh. 4 no.11:57-58 N '59.
(MIRA 13:4)

(Ryazan region--Corn (Maize))

KLIMTA, Y.

Two tunnels, Tekh.mol. 28 no.5:25-26 '60.
(English Channel--Tunnels)
(Mont Blanc--Tunnels)

(MIRA 13:7)

KLIMOVA, V.

Utilizing hidden potentialities at enterprises in Latvia. Sots.
trud 6 no. 2:131-132 / 1981. (11.14.81)

1. Nachal'nik sektora tekhnico-ekonomicheskikh obosrobeniy
TSentral'nogo konstruktorskogo byuro upravleniya khimicheskoy
i silikatno-keramicheskoy promyshlennosti sovetskoy Latvyskoy
SSR.

(Latvia--Construction--Labor productivity)

(Latvia--Construction--Labor productivity)

KLIMOVA, V.

Next comes the problem of muscles. Tekh.mol. 28 no.4:37-38
'60. (MIRA 13:11)
(Muscles) (Human engineering)

KLIMOVA, V.

"Fundamentals of concrete economics"; series of booklets.
Reviewed by V. Klimova. Tekh.mol. 29 no.8:33-34 '61. (MIRA 14:11)
(Economics)

KLIMOVA, V.A.; ZABRODINA, K.S.

Microdetermination of alkoxyl groups by the Zeisel-Viebock
modified method. Zhur. anal. khim. 18 no.1:109-112 Ja '63.
(MIRA 16:4)

I. N.D. Zelinsky Institute of Organic Chemistry, Academy of
Sciences, U.S.S.R., Moscow.
(Alkoxyl groups)

68

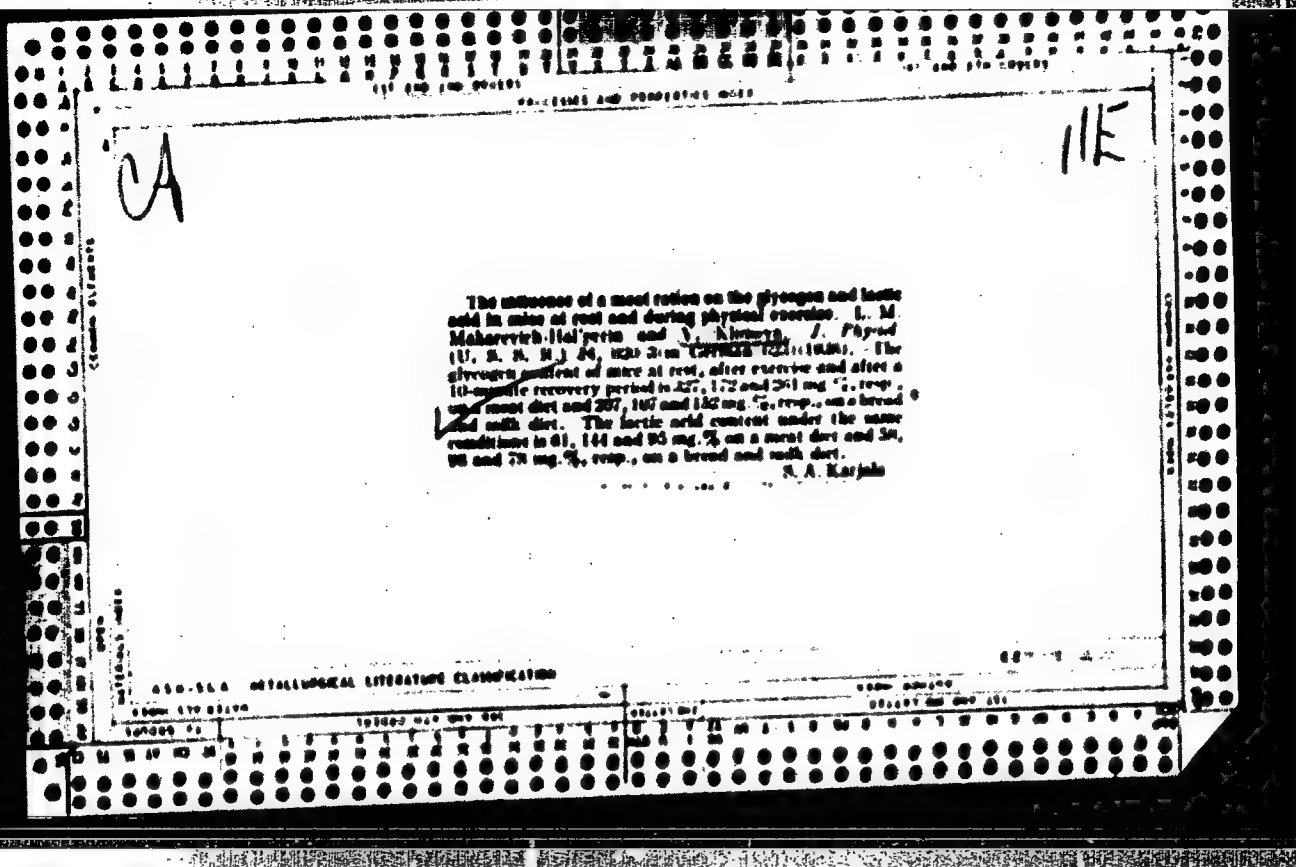
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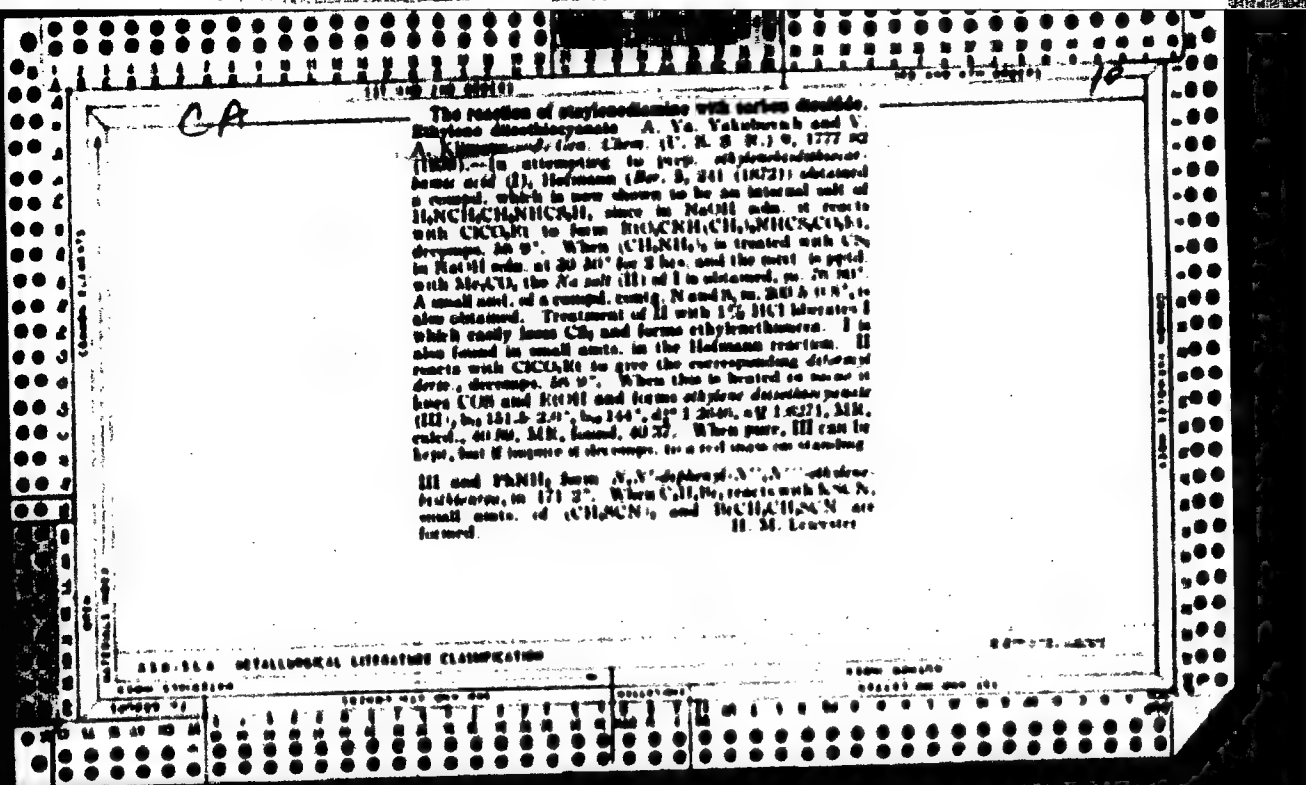
Determination of *p*-nitroaniline in a mixture with large quantities of *p*-aminobenzonitrile. A. P. Tsvetkov, V. A. Kuznetsov and V. P. Paschenko. *Zhurnal Khim. Fiz.* 4, 334 (1934). The data is based on the work of the authors by data with steam. For the case of *p*- and *p*-nitroaniline, by titration with NaOH . Place in a sample and 7 ml. of H_2O in a Watta flask provided with a dropping funnel and a reflux condenser and heat with a gradual addition of 20 cc. H_2O in a Watta funnel for 30 min. until 40 cc. of the distillate has come over. Wash the condenser with 10 cc. H_2O , add to 100 cc. and titrate the rather brownish in the distillate with 0.1 N NaOH , against 1 and starch indicator. The method when checked with equal parts of pure isomers is accurate to 0.2%, with 1:1, and to 0.4% with 1:5, with isomers. The method was successfully used in the control of nitration by adding and then proceeding as above. The presence of $\text{C}_6\text{H}_5\text{NH}_2$ has no effect on the results. However $\text{C}_6\text{H}_5\text{NH}_2$ is characterized much more slowly than $\text{C}_6\text{H}_5\text{NH}_2$, the data can be made in the presence of a little $\text{C}_6\text{H}_5\text{NH}_2$. C. B.

KLIMOVA, V. A.

"Synthese des composés organostanniques en passant par les diazoïques".
Kotchechkow, K. A., Nesmejanow, A. N. et Klimova, W. A. (p. 167)

SO: Journal of General Chemistry (Zhurna Obshchei Khimii) 1936, Volume 6, No. 2

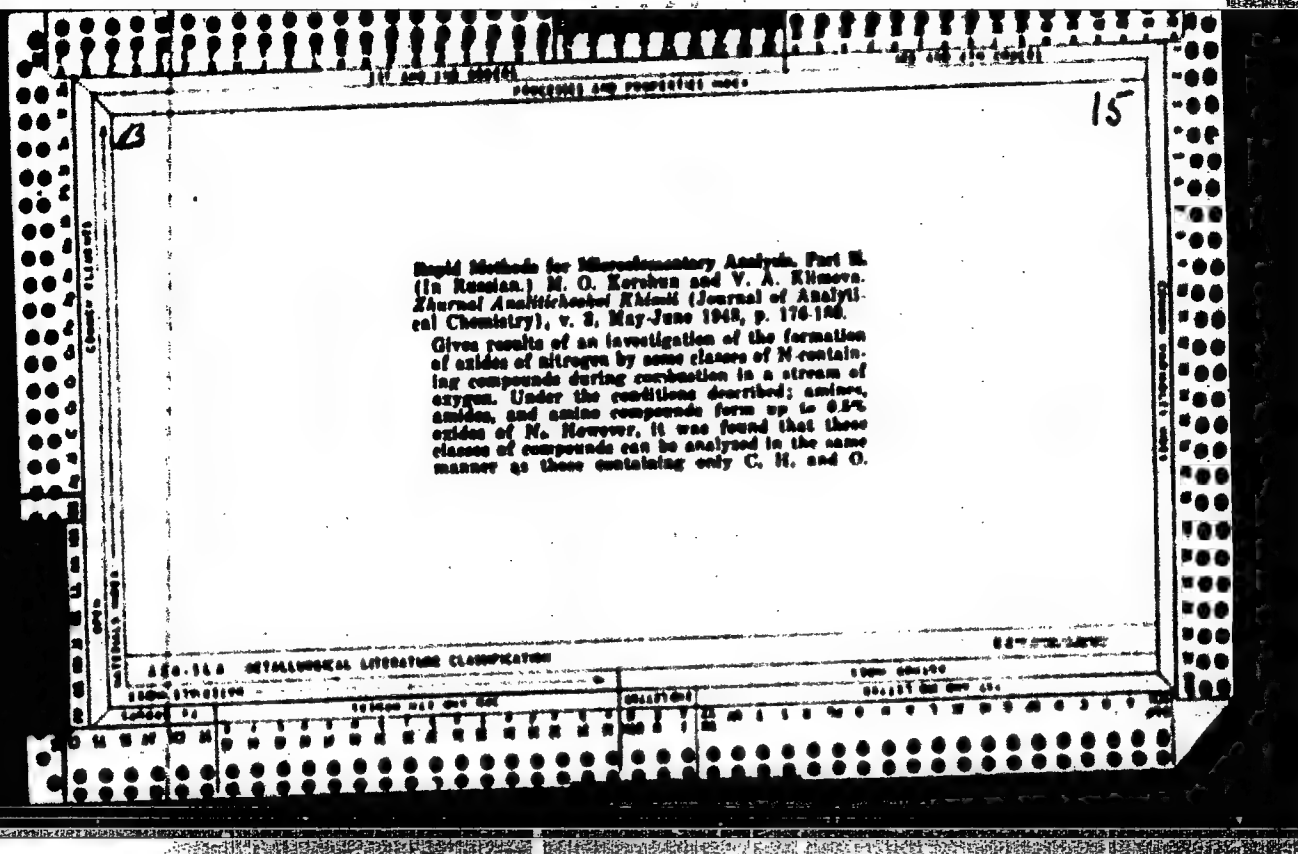




KLIMOVA, V. A.

Rapid methods for microelementary analysis. 1. Determination of carbon and hydrogen in samples containing carbon, hydrogen, and oxygen. M. O. Koryun and V. A. Klimova, *Zhur. Anal. Khim.* 2, 274-80 (1947). —A microcombustion method for detg. C and H is described. This method differs from the conventional one in using an empty combustion tube contg. the sample inside a microthimble. The combustion is carried out in a stream of O flowing at a rate of 30-80 cc./min. The combustion temp. is 900° and the time of combustion 10-15 min. Volatile liquids are placed inside a coiled capillary. Just before placing the capillary into the combustion tube, one end is broken off with pliers and the open end is rapidly inserted into a quartz thimble; the whole is then inserted into the combustion tube in a horizontal position, the closed end of the thimble nearest the tube's inlet. With these improvements a no. of solid, liquid, and highly volatile org. compds. were analyzed with an accuracy of $\pm 0.2\%$. M. Houch

4 chem



CA

Rapid methods of microelementary analysis. III. Determination of carbon and hydrogen in nitro compounds without the use of lead dioxide. M. O. Kordon and V. A. Kharin (Anal. Pri. U.S.S.R.), *Zh. Anal. Khim.* 1962, 17(1049); cf. C.A. 43, 8033a. The PbO_2 commonly used for retention of N oxides is undesirable since it absorbs many other substances and is likely to cause errors. N oxides are more effectively absorbed in K_2MnO_4 or $K_2Cr_2O_7$ dissolved in concd. H_2SO_4 . Four mg. of K_2MnO_4 or 25 mg. of $K_2Cr_2O_7$ is used for each ml. of 11% H_2SO_4 . For analyzing nitro compounds, the same app. is used as described in C.A. 43, 8033a except that a N oxide absorption train is inserted between the combustion tube and the regular absorption train. The added part comprises (in the direction from the combustion tube) a water absorption tube charged with $MgCl_2 \cdot 6H_2O$ or $CaSO_4$, a bubble counter the bottom of which is filled with H_2SO_4 , and K_2MnO_4 or $K_2Cr_2O_7$, an absorption tube charged with concd. H_2SO_4 , an absorption tube, and a tube charged with Analaar. In analyzing nitro compounds, the combustion should not extend beyond 10-12 min. The described method gave an accuracy of $\pm 0.3\%$. M. Hersh

183T27

USSR/Chemistry - Analytical

Jul/Aug 51

"Rapid Methods for the Microanalysis of Elements
IV. New Dry Absorbent for Recovery of Nitrogen
Oxides in the Determination of C and N in Organic
Nitrogen Compounds," V. A. Klimova, N. O. Korshun,
Inst Org Chem, Acad Sci USSR, Moscow

"Zhur Analit Khim" Vol VI, No 4, pp 230-233

New dry absorbent (silica gel moistened with soln of $K_2Cr_2O_7$ in H_2SO_4) has been proposed and introduced
into org microanal to collect nitrogen oxides
formed in rapid combustion anal of org N compds.

LC

183T27

USSR/Chemistry - Analytical (Contd) Jul/Aug 51

One charge lasts for 100-150 analyses of any org
N compds. Coarsely porous silica gel gives longer
service per charge than finely porous.

LC

183T27

USSR/Chemistry, Analytical - Organometallic - 21 Jun 52
Icon Compounds

"Rapid Microelemental Analysis Method; Simultaneous Determination of Carbon, Hydrogen, and Silicon," V.A. Klimova, M.O. Korshun, Ye. O. Berezmitshaya, Inst of Org Chem, Acad Sci USSR

"Dokl Ak Nauk SSSR" Vol LXXXIV, No 6, pp 1175-1178

In pyrolytic decomposition of organosilicon compounds by rapid combustion, silicon carbide is not formed by all classes of these compounds. In rapid decomposition, no silicon carbide is formed by compounds containing a naphthalene nucleus or alkyl groups. Conversely, it is generally formed by tetraalkylsilanes and by compounds containing

223723

unsaturated radicals, although they may burn up completely without carbide formation, if decomposition is slow under conditions of partial pyrolysis. Under those conditions, in addition to determination of C and H, Si can be detected simultaneously from the same sample with an accuracy of 1%. Presented by Acad A. N. Nesmeyanov 26 Apr 52.

223723

KLIMOVA, V. A.

KLIMOVA, V.A.

USSR/ Chemistry - Analytical chemistry

Card 1/1 : Pub. 145 - 4/10

Authors : Korshun, M. O.; Terentyeva, Ev. A.; and Klimova, V. A.

Title : Rapid micro-elementary analysis methods. Part 8.-Simultaneous microdetermination of O, H and P in phosphoro-organic compounds of the O,H,O,P and N-composition.

Periodical : Zhur. anal. khim. 9/5, 275-281, Sep-Oct 1954

Abstract : A new method for simultaneous micro-determination of O,H, and P in compounds of O,H,O,P and N-composition, is described. The time of one analytical determination is about 1.5 hrs and the deviation from the theory does not exceed 0.3%. The advantages of the new method are: rapidity, possibility of analysing substances which do not yield to decomposition by other methods, combined determination of P,O and H in the very same batch and preservation of the quartz test installation from corrosion. Results obtained by the new method are shown in table. Twenty-nine references: 8-USSR; 6-German; 5-USA; 4-French; 1-Italian; 1-English; 1-Australian; 1-Czech; 1-Hungarian and 1-Belgian (1898-1953).

Institution : Acad. of Sc. USSR, Institute of Elementary-Organic Compounds, Moscow

Submitted : July 9, 1954

NIH Translation - /M.

KLIMOVA, V. A.
USSR/Chemistry

Card 1/1

Authors : Klimova, V. A., Korshun, M. O., and Bereznitskaya, E. O.

Title : High-speed methods of microelementary analysis. Simultaneous determination of carbon, hydrogen, and phosphorus in organo-phosphorus compounds

Periodical : Dokl. AN SSSR, 96, Ed. 2, 257 - 258, May 1954

Abstract : New methods for microelementary analysis of organo-phosphorus compounds are discussed. Table is included showing the results obtained by such a high speed method and aided by a chromium-oxide-asbestos catalyst. All three elements -- carbon, hydrogen, and phosphorus -- were simultaneously determined in this experiment. According to obtained results, the analysis for carbon and hydrogen is within the limits of conventional accuracy, the accuracy for phosphorus is somewhat lower but it is hoped that this simultaneous C, H and P-determination method will be improved. Four references; 3 USSR since 1947. Table

Institution : Acad. of Scs. USSR, The N. D. Zelinskiy Institute of Org. Chem

Presented by : Academician A. N. Nesmeyanov, February 24, 1954

KLIMOVA, V.A.

JOURNAL ARTICLE TRANSLATION

Transl. No.
& Country

Translations Issued By R. A. E.

Author

512
U.S.S.R.

Rapid Methods of Microelementary
Analysis: 3.-Determination of C and
H in Nitrocompounds without using
Lead Peroxide
Zh. anal. Khim., 4 (5), 292-297,
Feb., 1955

M. O. Korshun
V. A. Klimova

Sources: Index Aeronauticus, Vol. 11, No. 6, p 133, June 1955

Klimova, V.A.

✓ Determination of fluorine in organic compounds. M. 17.
Korshun, V. A., Klimova, and M. N. Chumachenko
Anal. Chem. 43: 10, 147-148 (1971) Eng. transl.
See C.A. 50: 76,574

Chumachenko 3
177 *20*

5005

Klimova, V.A.

USSR/ Analytical Chemistry - Analysis of Organic Substances

G-3

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 121-1

Author : Korshun M.O., Klimova V.A., Chumachenko M.N.

Title : Determination of Fluorine in Organic Compounds. (11).

Orig Pub : Zh. analit. khimii, 1955, 10, No 6, 358-363

Abstract : Description of a semi-micro method for determination of F in organic compounds, which is based on heating the substance with metallic K in a steel micro-bomb at 800-850° and titrating the thus obtained F⁻ with a solution of Th(NO₃)₄. Presence of N, S, and halogens does not interfere with the titration. Shown is the possibility of simultaneous determination of F and Cl, and the procedure is described for the determination of F in the presence of P. Communication 10, see RZhKhim, 1957, 4823.

Card 1/1

KLIMOVA, V. A.

✓ Rapid methods of microelementary analysis of
simultaneous determination of carbon, hydrogen, and sil-
con in silicon organic compounds

Forsman, and P. C. Berensson

Org. Chem., 1964, 39, 1000

Chem. 11, 1000

Sample in glass

2. Sample in glass

with this gas

which forms part of a...
by siliceous...
decomposed in one part of the tube at 800°C and oxidized
in another at 800°C. C and H oxidized to CO₂ and H₂O
resp. are trapped in...
oxidized to SiO₂ remains in the quartz...
Si org. compounds were analyzed with errors not exceeding
±0.3% for C and H and ±0.1% for Si M. H. H.

Kimova, V.A.

✓ 1961 Rapid methods of micro elemental analysis
as XII Simultaneous determination of
hydrogen, silicon and barium

1. Introduction
2. Materials
3. Method of preparation
4. Results
5. Discussion
6. Conclusion
7. Literature cited
8. References

KLIMOVA, I. A.

✓ 646 Rapid methods of micro-elementary analysis
XIII. Simultaneous determination of carbon,
hydrogen, silicon and sulphur in silicon-containing
organosilicon compounds.
Klimova I. A. in: Trudy Khim. i Mekh. Silikonov
Chim. Moscow, 1967, No. 1, p. 100, 101, 102, 103.
11. 124-125. The methods previously described
by Klimova et al. Anal. Chem. USSR, 1963, 1, 1057-1061 and 1964, 1, 1057-1061 are improved.
The methods described in this paper are for the
simultaneous determinations of C, H, Si and S in organo-
silicon compounds.

AUTHORS: Klimova, V. A., Dubinina, I. F. 62-2-1-/28

TITLE: A New Variant of the Method of Nitrogen Determination According to Dumas (Novyy variant metoda opredeleniya azota po Dyuma).

PERIODICAL: Izvestiya AN SSSR Otdeleniye Khimicheskikh Nauk, 1958, Nr 2, pp. 129-132 (USSR).

ABSTRACT: In the employment of the above-mentioned method the quantitative oxidation of the compound to be investigated is indispensable, so that the entire nitrogen (elementary) can be obtained at the same time. A nitrogen determination in nitrils, nitrates of silver and alkaline metals is, however, not possible in this way. But it is possible to obtain not quite reliable results by means of analyses of the nitro-compounds with a higher number of nitro-groups, heterocyclic compounds, as well as compounds with the system of condensed rings, with angular methyl-groups, methylated amines and others. Some modifications of the micromethod (according to Dumas) were recently suggested for the purpose of determining the nitrogen in the respective compounds. Almost all of these methods are, however, characterized by considerably more complicated

Card 1/3

A New Variant of the Method of Nitrogen Determination
According to Dumas.

62-2-1/28

apparatus (and more complicated technique). They do not furnish reliable data. By the authors' opinion the reason for these failures lies in the method of the combustion of the substance during the analysis of a number of nitrogenous compounds. Marten in his interesting paper reports on a new method. The author suggests not to fill part of the tube. Into the empty part of the combustion tube a small glass is placed which contains a weighed portion covered with a layer of copper oxide. The combustion takes place in the small glass by gradually moving the burner from the open end of the glass toward its closed part (see figure and table). The present paper now gives a new modification of the micromethod according to Duma (Dumas). It was found that in the combustion process in the small glass on removal of the sample a refilling of the combustion tube is not absolutely necessary (except in a thin layer of hopkalyth), as a comparatively short zone of filling which is placed in the small glass is sufficient for the complete oxidation of the compound and the reduction of the oxides. It was further shown that by means of the suggested method good results of analysis can be obtained (with an accuracy of $\pm 0,2\%$). This also applies to slow-burning

Card 2/3

A New Variant of the Method of Nitrogen Determination
According to Dumas.

62-2-1/28

compounds.

There are 1 figure, 1 table, and 6 references.

ASSOCIATION: Institute for Organic Chemistry imeni N. D. Zelinskiy
AN USSR (Institut organicheskoy khimii imeni N. D.
Zelinskogo Akademii nauk SSSR).

SUBMITTED: January 18, 1957

AVAILABLE: Library of Congress
1. Nitrogen-Determination

Card 3/3

AUTHORS: Klimova, V. A., Anisimova, G. F. 62-58-6-30/37

TITLE: ~~The Simultaneous Determination of Carbon, Hydrogen and Nitrogen~~
(Odnovremennoye opredeleniye ugleroda, vodoroda i azota)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk,
1958, Nr 6, pp. 791 - 792 (USSR)

ABSTRACT: Besides carbon and hydrogen, nitrogen belongs to those elements which must be determined most frequently in the analysis of organic compounds. The authors suggest a new method which they developed for the purpose of simultaneously determining carbon, hydrogen and nitrogen by means of the pyrolytic decomposition of organic substances in the oxygen current (in an empty tube). Carbon and hydrogen can be determined as before, but nitrogen is determined according to the sum of the oxides formed and of elementary nitrogen. There are 1 table and 5 references, 4 of which are Soviet.

Card 1/2

The Simultaneous Determination of Carbon, Hydrogen
and Nitrogen

50V.62-58-6-30/37

ASSOCIATION: Institut organicheskoy khimii im. N.D. Zelinskogo Akademii nauk
SSSR (Institute of Organic Chemistry imeni N.D. Zelinskiy, AS USSR)

SUBMITTED: February 14, 1958

1. Carbon--Determination 2. Hydrogen--Determination 3. Nitrogen
--Determination 4. Organic compounds--Analysis

Card 2/2

5(3)

SOV/62-59-1-34/38

AUTHORS:

Klimova, Y. A., Zabrodina, K. S.

TITLE:

Microdetermination of the Carbonyl Group by the Oximation Method (Mikroopredeleniye karbonil'noy gruppy metodom oksimirovaniya)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 1, pp 175 - 176 (USSR)

ABSTRACT:

The method of microdetermination suggested in this communication is based on the oximation with hydroxylamine hydrochloride in the presence of triethanol amine by which the hydrochloric acid separated in the reaction is neutralized. The excess of triethanol amine is determined by titration with hydrochloric acid. Bromophenol blue is used as an indicator. In order to determine the end of titration more precisely sodium chloride solution is added. The method can be applied for the determination of aldehydes and ketones which in addition to the carbonyl group possess also methylene groups with mobile hydrogen. This method has an accuracy of $\pm 0.3\%$. There are 1 table and 4 references.

Card 1/2

Microdetermination of the Carbonyl Group by the
Oximation Method

SOV/62-59-1-34/38

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii
nauk SSSR (Institute of Organic Chemistry imeni N. D. Ze-
linskiy of the Academy of Sciences, USSR)

SUBMITTED: June 20, 1958

Card 2/2